PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference	FOR FURTHER	·	see Form PCT/ISA/220	
PN0368-PCT	ACTION	as well as, where applicable, item 5 below.		
International application No.	International filing date (day/mont	h/year)	(Earliest) Priority Date (day/month/year)	
PCT/NO2004/000287	28/09/2004		29/09/2003	
Applicant				
AMERSHAM HEALTH AS		·- · ·-	·	
This International Search Report has been according to Article 18. A copy is being tra	n prepared by this International Sea	rching Auth	nority and is transmitted to the applicant	
This International Search Report consists	of a total of6sh	eets.		
X It is also accompanied by	a copy of each prior art document of	ited in this	report.	
Basis of the report a. With regard to the language, the language in which it was filed, unl	international search was carried ou ess otherwise indicated under this i	on the bastem.	sis of the international application in the	
The international this Authority (Ru		of a transla	ation of the international application furnished to	
b. With regard to any nucle d	otide and/or amino acid sequence	disclosed	in the international application, see Box No. I.	
2. X Certain claims were four	nd unsearchable (See Box II).			
3. Unity of invention is lac	king (see Box III).			
4. With regard to the title,				
X the text is approved as su	X the text is approved as submitted by the applicant.			
the text has been establis	hed by this Authority to read as follo	ows:		
			•	
5. With regard to the abstract,				
X the text is approved as su		hie Authori	ty as it appears in Box No. IV. The applicant	
may, within one month fro	m the date of mailing of this interna	tional sear	ch report, submit comments to this Authority.	
6. With regard to the drawings,				
a. the figure of the drawings to be p	ublished with the abstract is Figure	No		
as suggested by t	• •			
	s Authority, because the applicant f s Authority, because this figure bett	•		
	e published with the abstract.	ei uiaiaule	nizes ale iliveriuon.	

International Application No PCT/N02004/000287

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 A61K49/00 A61K47/48

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

 $\begin{array}{ll} \mbox{Minimum documentation searched (classification system followed by classification symbols)} \\ \mbox{IPC 7} & \mbox{A61K} \end{array}$

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, BIOSIS, CHEM ABS Data, EMBASE

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	MARTEN K ET AL: "DETECTION OF DYSPLASTIC INTESTINAL ADENOMAS USING ENZYME-SENSING MOLECULAR BEACONS IN MICE" GASTROENTEROLOGY, W.B.SAUNDERS COMPANY, PHILADELPHIA, US, vol. 122, no. 2, February 2002 (2002-02), pages 406-414, XP008044304 ISSN: 0016-5085 page 406, column 1 page 408, column 2; figure 1 see discussion ————————————————————————————————————	1-12

X Further documents are listed in the continuation of box C.	Patent family members are listed in annex.
 Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed 	 "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. "&" document member of the same patent family
Date of the actual completion of the international search 5 April 2005	Date of mailing of the international search report $14/04/2005$
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer Gonzalez Ramon, N

International Application No
PCT/N02004/000287

C.(Continu	ation) DOCUMENTS CONSIDERED TO BE RELEVANT	FC17N020047000287
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 02/26776 A (NYCOMED IMAGING AS; CUTHBERTSON, ALAN; AMERSHAM HEALTH AS) 4 April 2002 (2002-04-04) page 23, paragraph 5 - page 24, paragraph 1 page 17, lines 1,2 page 3, line 4 page 6, paragraphs 3,4	1-4,6-12
Y	WEISSLEDER R ET AL: "IN VIVO IMAGING OF TUMORS WITH PROTEASE-ACTIVATED NEAR-INFRARED FLUORESCENT PROBES" NATURE BIOTECHNOLOGY, NATURE PUBLISHING, US, vol. 17, no. 4, April 1999 (1999-04),	1-12
	pages 375-378, XP001164273 ISSN: 1087-0156 page 377, column 2, paragraph 1	
Υ .	MCCABE R T ET AL: "CHARACTERIZATION OF BENZODIAZEPINE RECEPTORS WITH FLUORESCENT LIGANDS"	1-12
	FASEB JOURNAL, FED. OF AMERICAN SOC. FOR EXPERIMENTAL BIOLOGY, BETHESDA, MD, US, vol. 4, no. 11, 1990, pages 2934-2940, XP008044306 ISSN: 0892-6638 see discussion abstract; figure 1	
Y	REBECA ERLICH ET AL: "Biologic and targeted therapies" IDRUGS, vol. 5, no. 6, 2002, pages 503-507, XP002323224 page 506, column 2, paragraph 2	1-12
A	WO 02/32464 A (MALLINCKRODT INC; ACHILEFU, SAMUEL; RAJAGOPALAN, RAGHAVAN; DORSHOW, RI) 25 April 2002 (2002-04-25) figures 4,6,10a,10b; examples 7-9	1-12
A	WO 02/20610 A (MALLINCKRODT INC; SCHMIDT, MICHELLE, A; ERION, JACK, L; SRINIVASAN, AN) 14 March 2002 (2002-03-14) page 13; claims 1,3,6,8,11,13,26	1-12
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International Application No PCT/N02004/000287

CICarti	ntion) DOCUMENTS CONCIDENTS TO SE DEL SUAME	PC17N02004	7 000207
Category °	ation) DOCUMENTS CONSIDERED TO BE RELEVANT Citation of document, with indication, where appropriate, of the relevant passages		Delevent to alsi N-
		['	Relevant to claim No.
Ρ,Χ	FRANCESCO DI A M ET AL: "SYNTHESIS AND BIOLOGICAL EVALUATION OF NOVEL DIAZIRIDINYLQUINONE-ACRIDINE CONJUGATES" ANTI-CANCER DRUGS, RAPID COMMUNICATIONS, OXFORD, GB, vol. 14, no. 8, September 2003 (2003-09), pages 601-615, XP008044286 ISSN: 0959-4973 page 608; table 2 abstract		1-8
P,X	WO 2004/062568 A (AMERSHAM HEALTH AS; SOLBAKKEN, MAGNE; ENGELL, TORGRIM; WADSWORTH, HARR) 29 July 2004 (2004-07-29) page 4; examples 2,7		1-8, 10-12
E	WO 2005/003166 A (AMERSHAM HEALTH AS; CUTHBERTSON, ALAN; INDREVOLL, BAARD; SOLBAKKEN, MA) 13 January 2005 (2005-01-13) page 2, line 25; claims 12,13 abstract page 13 - page 15		1-12
		(4)	

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Information on patent family members

International Application No
PCT/NO2004/000287

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
WO 0226776	A	04-04-2002	AU CA CN EP JP WO NO US	9245601 A 2420577 A1 1462276 A 1358206 A2 2004509975 T 0226776 A2 20031323 A 2003176639 A1	08-04-2002 04-04-2002 17-12-2003 05-11-2003 02-04-2004 04-04-2002 24-03-2003 18-09-2003
WO 0232464	Α	25-04-2002	US AU CA EP JP WO US	6656451 B1 1309902 A 2425703 A1 1326648 A1 2004513893 T 0232464 A1 2004202611 A1	02-12-2003 29-04-2002 25-04-2002 16-07-2003 13-05-2004 25-04-2002 14-10-2004
WO 0220610	Α	14-03-2002	AU WO	8884701 A 0220610 A2	22-03-2002 14-03-2002
WO 2004062568	Ã	29-07-2004	WO	2004062568 A2	29-07-2004
WO 2005003166	Α	13-01-2005	MO.	2005003166 A1	13-01-2005

International Application No
PCT/N02004/000287

A. CLASSI IPC 7	FICATION OF SUBJECT MATTER A61K49/00 A61K47/48					
According to	According to International Patent Classification (IPC) or to both national classification and IPC					
B EIELDE	SEADCHEN					
	SEARCHED currentation searched (classification system followed by classificat A61K	ion symbols)				
Documental	ion searched other than minimum documentation to the extent that	such documents are included in the fields sear	rched			
Electronic d	ata base consulted during the international search (name of data be	ise and, where practical, search terms used)				
EPO-In	ternal, WPI Data, PAJ, BIOSIS, CHEM	ABS Data, EMBASE				
C. DOCUM	ENTS CONSIDERED TO BE RELEVANT					
Category °	Citation of document, with indication, where appropriate, of the re	levant passages	Relevant to claim No.			
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X Furth	ner documents are listed in the continuation of box C.	χ Patent family members are listed in a	annex.			
Special car	tegories of cited documents :	"T" later document published after the internal	ational filing date			
"A" document defining the general state of the art which is not		or priority date and not in conflict with the	application but			
consid	ered to be of particular relevance	cited to understand the principle or theol invention	y underlying the			
"E" earlier o	locument but published on or after the International ate	"X" document of particular relevance; the claim cannot be considered novel or cannot be				
	nt which may throw doubts on priority claim(s) or	involve an inventive step when the docu	ment is taken alone			
which is cited to establish the publication date of another citation or other special reason (as specified) "Y" document of particular relectation or other special reason (as specified) cannot be considered to						
	O document referring to an oral disclosure, use, exhibition or document is combined with one or more other such docu-					
P docume	other means ments, such combination being obvious to a person skilled in the art. P document published prior to the international filing date but in the art.					
	an the priority date claimed actual completion of the international search	*&" document member of the same patent far Date of mailing of the international search				
5	April 2005	14/04/2005				
Name and m	nailing address of the ISA	Authorized officer				
	European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk					
	Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,	Gonzalez Ramon, N				
Fax: (+31-70) 340-3016 GUIIZaTEZ Kallott, N						

i	International Application No
	PCT/NO2004/000287

		PCT/N02004/000287
	ation) DOCUMENTS CONSIDERED TO BE RELEVANT	
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 02/26776 A (NYCOMED IMAGING AS; CUTHBERTSON, ALAN; AMERSHAM HEALTH AS) 4 April 2002 (2002-04-04) page 23, paragraph 5 - page 24, paragraph 1 page 17, lines 1,2 page 3, line 4 page 6, paragraphs 3,4	1-4,6-12
Y	WEISSLEDER R ET AL: "IN VIVO IMAGING OF TUMORS WITH PROTEASE-ACTIVATED NEAR-INFRARED FLUORESCENT PROBES" NATURE BIOTECHNOLOGY, NATURE PUBLISHING, US,	1-12
	vol. 17, no. 4, April 1999 (1999-04), pages 375-378, XP001164273 ISSN: 1087-0156 page 377, column 2, paragraph 1	
Y	MCCABE R T ET AL: "CHARACTERIZATION OF BENZODIAZEPINE RECEPTORS WITH FLUORESCENT LIGANDS" FASEB JOURNAL, FED. OF AMERICAN SOC. FOR EXPERIMENTAL BIOLOGY, BETHESDA, MD, US, vol. 4, no. 11, 1990, pages 2934-2940, XP008044306 ISSN: 0892-6638 see discussion abstract; figure 1	1-12
Y	REBECA ERLICH ET AL: "Biologic and targeted therapies" IDRUGS, vol. 5, no. 6, 2002, pages 503-507, XP002323224 page 506, column 2, paragraph 2	1-12
A	WO 02/32464 A (MALLINCKRODT INC; ACHILEFU, SAMUEL; RAJAGOPALAN, RAGHAVAN; DORSHOW, RI) 25 April 2002 (2002-04-25) figures 4,6,10a,10b; examples 7-9	1-12
A	WO 02/20610 A (MALLINCKRODT INC; SCHMIDT, MICHELLE, A; ERION, JACK, L; SRINIVASAN, AN) 14 March 2002 (2002-03-14) page 13; claims 1,3,6,8,11,13,26	1-12
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International Application No
PCT/N02004/000287

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	etion) DOCUMENTS CONSIDERED TO BE RELEVANT		
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Р,Х	FRANCESCO DI A M ET AL: "SYNTHESIS AND BIOLOGICAL EVALUATION OF NOVEL DIAZIRIDINYLQUINONE-ACRIDINE CONJUGATES" ANTI-CANCER DRUGS, RAPID COMMUNICATIONS, OXFORD, GB, vol. 14, no. 8, September 2003 (2003-09), pages 601-615, XP008044286 ISSN: 0959-4973 page 608; table 2 abstract	1-8	
Ρ,Χ	WO 2004/062568 A (AMERSHAM HEALTH AS; SOLBAKKEN, MAGNE; ENGELL, TORGRIM; WADSWORTH, HARR) 29 July 2004 (2004-07-29) page 4; examples 2,7	1-8, 10-12	
E	WO 2005/003166 A (AMERSHAM HEALTH AS; CUTHBERTSON, ALAN; INDREVOLL, BAARD; SOLBAKKEN, MA) 13 January 2005 (2005-01-13) page 2, line 25; claims 12,13 abstract page 13 - page 15	1-12	

International application No. PCT/N02004/000287

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)
This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:
1. X Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely: Although claims 10–12 are directed to a diagnostic method practised on the
human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful international Search can be carried out, specifically:
3. Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).
Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)
This International Searching Authority found multiple inventions in this international application, as follows:
As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is
restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
Remark on Protest The additional search fees were accompanied by the applicant's protest.
No protest accompanied the payment of additional search fees.

Information on patent family members

International Application No PCT/NO2004/000287

Patent document cited in search report			Publication date	Patent family member(s)		Publication date	
WO	0226776	Α	04-04-2002	AU		A	08-04-2002
				CA		A1	04-04-2002
			•	CN		A	17-12-2003
				EP		A2	05-11-2003
				JP	2004509975	T	02-04-2004
				WO	0226776		04-04-2002
				NO		Α	24-03-2003
				US	2003176639	A1	18-09-2003
WO	0232464	A	25-04-2002	US	6656451	B1	02-12-2003
				ΑU	1309902	Α	29-04-2002
				CA	2425703	A1	25-04-2002
				EP	1326648	A1	16-07-2003
				JP	2004513893	T	13-05-2004
				WO	0232464	A1	25-04-2002
				US	2004202611	A1·	14-10-2004
WO	0220610	Α	14-03-2002	AU	8884701	 A	22-03-2002
		• •	21 20 2002	WO	0220610	A2	14-03-2002
WO	2004062568	Α	29-07-2004	WO	2004062568	A2	29-07-2004
WO	2005003166	Α	13-01-2005	WO	2005003166	Al	13-01-2005